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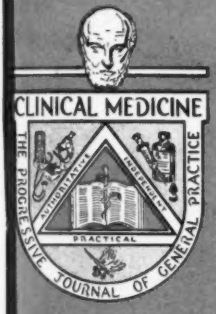

SEPTEMBER
1945

LEADING ARTICLES

	Page
Common Anemias: Their Cause and Treatment	291
Peritoneoscopy	294
A Case of Thrombophlebitis and Pulmonary Embolism	298
Filariasis	299
Treatment of Leukorrhea	302
Use of Chlorophyll in Wound Healing and Suppurative Diseases	307
Treatment of Rheumatoid Arthritis	308
Basal Temperature Graphs: An Aid in the Study of Sterility	309
Pictorial Section (Hand Infections and Injuries	303
Editorials	311

COMPLETE TABLE OF CONTENTS ON ADVERTISING PAGE FOUR

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VOLUME 52 NUMBER 9

lunch & dinner

The Autocrat of the Breakfast Table...

Children with strong likes and dislikes often dictate the eating habits of a whole family. Mothers come to plan and select foods, not for their nutritional value, but with an eye to what John, jr. will and will not eat. The result—unbalanced meals—*and the constant danger of subclinical vitamin deficiencies.* • Others, too, run serious dietary risks—women on self-imposed "beauty" and reducing diets, food faddists, those who regularly "eat on the run," sedentary workers with low energy requirements and poor appetites—all these and many others may fail to receive adequate amounts of the important vitamins daily. ◦ In such cases, many physicians, in addition to correcting the unbalanced diet, prescribe a vitamin product as a rational supplementary measure. Those who specify *Abbott* know that their patients will receive vitamin products of dependable quality. Why not give *your* patients this assurance. ABBOTT LABORATORIES, North Chicago, Illinois.

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VOLUME 52 SEPTEMBER, 1945 NUMBER 9

Common Anemias: Their Cause and Treatment*

By C. C. STURGIS, M.D., *Professor of Medicine*
University of Michigan Medical School, Ann Arbor, Mich.

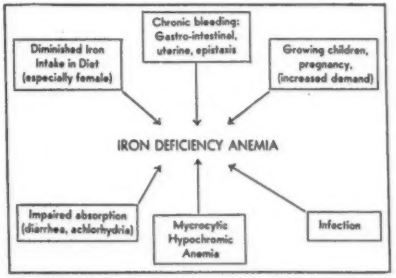
HOW many patients are anemic? A routine study on 1,000 consecutive patients admitted to the University of Michigan Hospitals for all complaints and to all departments showed that over 12 percent of all such patients were anemic.

Severe anemia	1.9 percent
Moderately severe	1.2 percent
Moderate	2.4 percent
Slight anemia (below 13 Gm. hemoglobin)	7 percent

The incidence of anemia was the same in males and females.

Clinical significance? 5.5 percent of all patients had a clinically significant anemia, even disregarding the mild or slight anemias. Many patients are admitted direct to a department in the hospital (such as urology) instead of having a thorough examination first. Many of these patients have overlooked conditions including anemia and tuberculosis.

Hemoglobin estimations: In most hospitals the hemoglobin determination is inaccurate and misleading, yet it is a most important test.


Chronic bleeding: Gastro-intestinal, uterine, epistaxis
Diminished Iron Intake in Diet (especially female)
Growing children, pregnancy, (increased demand)
IRON DEFICIENCY ANEMIA
Impaired absorption (diarrhea, achlorhydria)
Mycrocytic Hypochromic Anemia
Infection

Routine medical facts: These procedures should be routine on all patients who are being examined thoroughly: 1. Kahn blood test, 2. x-ray of chest, 3. hemoglobin examination, 4. hematocrit (Wintrobe tube method) which also tells us the 5. sedimentation rate, 6. mean corpuscular hemoglobin concentration (saturation index) which is better than the color index, 7. urine examination, 8. blood protein content and 9. height and weight.

What type of patients are more commonly anemic? Studies on patients entering different divisions of the hospital reveal great differences in the rate of anemia occurrence:

* Notes taken by Dr. R. L. Gorrell, at the War-Time Graduate Meeting, Denver, Colorado, March 16, 1945, from a full length paper.

Urologic patients 12%	Oral surgery 7%
Thoracic surgery 11%	General medical...6.3%
Obstetrical 10%	Neurosurgical.....4.3%
General surgery 7.6%	Ear, Nose, Throat . 3.7%
Gynecology 7.4%	Orthopedic patients..3%

Types of Anemia

Iron deficiency anemias were the most common. 41 percent of patients had microcytic (small cells), hypochromic (lacking in color) anemia, which is usually due to lack of iron.

Simple chronic anemias (mild normochromic) comprised 39 percent. Moderate to severe normochromic anemias included 20 percent of patients.

Simple Chronic Anemia

Simple chronic (normochromic) anemias do not respond well to treatment. The red blood cell count is usually between 3 and 4,000,000; the hemoglobin between 60 and 75 percent.

Chronic infection is a frequent cause. Look for infection, especially in the urinary and pelvic organs, instead of giving iron or liver. Neither will help because there is no deficiency of either. The anemia associated with nephritis is intractable. It is often associated with acidosis.

Treatment: 1. Eliminate the infection. 2. Transfusions may be rarely necessary.

Iron Metabolism

Iron intake should be 12 to 16 mg. daily. Iron is absorbed by the mucosa of the intestinal tract if it is needed by the body. The iron is stored or used in formation of hemoglobin. Excess iron is not absorbed. Iron which enters the blood stays there for a long time, with the exception of loss in menstrual blood. A trace of iron appears in urine and bile.

An anemic dog absorbs many times as much iron as a dog with normal blood.

Effect of very frequent transfusions: In a few patients who have received a large number of transfusions, the addition of so much iron has resulted in deposits of iron in the tissues and a dark skin.

Iron Deficiency Anemia

Iron Deficiency anemia may be due to 1. diminished dietary intake of iron, especially in the female, 2. chronic hemorrhage including bleeding ulcer, hemorrhoids, menorrhagia, epistaxis, 3. increased demands for iron due to growth in children and pregnancy, 4. infection, 5. microcytic hypochromic anemia and 6. impaired absorption due to diarrhea and achlorhydria (5 percent of all patients with achlorhydria have an iron deficiency anemia). Menstrual blood loss may be heavy yet the patient may not be aware that she is losing more than usual. Hemoglobin drops off when infection appears.

There may be a combination of several of the above causes, or hemorrhage alone may result in iron deficiency anemia.

Idiopathic, hypochromic anemia, nutritional anemia in child or grownup and the anemia of pregnancy are iron deficiency anemias.

Anemia in Adolescent Girls

Anemia is common in adolescent girls (found in 20 percent). Where meat is severely rationed, as in Edinburgh, the rate climbed to 50 percent as compared to normal years.

Anemia of Pregnancy

One-half of pregnant women are anemic. After iron therapy, only one-fourth still show low determinations. There is a "physiological anemia" of pregnancy due to increased blood volume and consequent dilution of hemoglobin and red cells. Up to the sixth month, there is an increasing blood volume which finally amounts to a one-fourth increase. After delivery, the plasma volume drops rapidly.

The *lowest permissible standards* for pregnant women should be:

3,500,000 red blood cells
10 Gm. or 68% hemoglobin
Cells: Normal size and shape

The *pernicious anemia of pregnancy is a marked protein starvation.* The low intake of animal protein results in a macrocytic anemia (a low intake is consider to be less than 50 Gm.). If one adds 1 quart of milk (40 Gm.), one serving of meat and one egg daily to her diet, the blood returns to normal promptly.

Every pregnant woman should receive: 0.3 Gm. (5 gr.) of ferrous sulphate three times daily *after* meals, 1 quart of

Effect of Iron During Pregnancy

Pregnant patients	Hemoglobin at term	Hemoglobin 6 weeks after delivery
100 patients given iron	75	85
100 patients not receiving iron	55	65

milk (which may be skim milk), 1 serving of meat and 1 egg. This diet will usually prevent pernicious anemia of pregnancy.

Treatment of all iron deficiency anemias: All that these patients need is iron; they do not need liver, copper or vitamins. They respond well to iron alone.

0.3 Gm. (5 Gr.) of ferrous sulphate is given *after* each meal. If there is no response, the dose should be doubled.

If enough iron is given, an increase of 1 percent hemoglobin should take place each day. If this does not occur, either enough iron is not being given or some other cause is at work (such as infection, heavy menstrual loss, bleeding from the gastrointestinal tract).

True gastrointestinal distress after iron administration is rare. Enteric coated tablets may be used. Iron should never be given intravenously as it causes serious reactions and doesn't leave the blood.

There is no need to add *hydrochloric acid* as we cannot give enough to be of value.

Anemia in Infants

Anemia in infants: An infant born to an anemic mother will not be anemic at birth. Before the end of 1 year however, his small iron reserve will be used up and anemia will appear. Iron should be given to infants whose mothers are anemic, to prevent the occurrence of anemia at 6 to 10 months.

Pernicious Anemia

The lesion of pernicious anemia is an atrophy to a very thin membrane of the fundus of the stomach. The lesions of the spinal cord may be due to a deficiency of vitamin B.

Diagnosis: Achlorhydria—in 100% of patients; Response to treatment—100% of patients; Macrocytosis—90%; Paresthesia—90%; Glossitis—65%.

A sharp increase in reticulated red blood cells (reticulocytes) appears in 3 to 5 days. These cells are shown by cresyl blue staining of an ordinary blood film.

Treatment: Intramuscular liver extract is the treatment. It is impossible to overtreat, as the extract not used remains in the muscle.

Dose: When first treating a case of pernicious anemia or treating a case in relapse, one cc. of the concentrated 15 unit extract should be given daily for 1 week, then thrice weekly until the blood has returned to normal. The maintenance dose is 2 cc. every 2 weeks.

One may inject 9 cc. at once. This "depot" will afford sufficient material to treat the patient for 10 weeks or more.

Allergy to Liver Extract

Flushing of the face, nasal obstruction, tachycardia, urticaria, asthma and rarely anaphylactic shock are allergic reactions following the intramuscular injection, and occasionally the oral use, of liver extract.

Treatment: Always have a syringe containing adrenalin solution at hand when a patient receives his first injections of liver extract. When these symptoms appear, give 0.3 cc. subcutaneously at once, and repeat, if needed.

Skin test: Such patients will have a positive skin test, i.e. a red flare and wheal when the liver extract is injected into the skin.

It must be remembered that such patients are sensitive to all types of liver extract (organ sensitive), not to the animal from which the liver is obtained, so that it is useless to change to another type of extract.

Desensitizing the patient: Give 0.1 cc. of 1/10 dilution of the liver extract every three days, increasing 0.2 cc. with each dose. When the maximum dose is reached, 1 cc. should be given weekly.

Oral therapy: Oral treatment is much less effective. Ventriculin (stomach extract) may be given in doses of 70 to 110 Gm. daily, or liver extract orally, 12.75 Gm. daily (4 capsules 3 times daily or 3 level teaspoons).

Preventing Pernicious Anemia Deaths

One-third of patients die from pernicious anemia or spinal cord changes due to pernicious anemia. The spinal cord changes are most serious. *The blood count must be kept up to at least 4,500,000 and the cell size normal (below 100 cubic microns) to prevent such changes.*

Regular, unchanging treatment will improve the great majority (87 percent) of patients with spinal cord changes. Even inadequate treatment will improve from 10 to 28 percent.

Paresthesia or other symptoms or cord changes should indicate a doubling of the usual maintenance dose. Intramuscular thiamine (vitamin B_1) injections may be helpful for infections.

Peritoneoscopy

By JOSEPH GASTER, M.D., *Los Angeles, California*

IT HAS been said that the anterior abdominal wall forms a major obstacle to the accurate diagnosis of intra-abdominal conditions. At the present stage of medical knowledge we are forced, all too frequently, to make an accurate diagnosis by completing our examination through an abdominal incision. Peritoneoscopy is a procedure of examining the intraperitoneal organs which, in occasional cases, will render sufficient information to make an exploratory operation unnecessary.

Indications

1. All cases of ascites (of non-cardiac origin), to confirm the clinical diagnosis and possibly add to the diagnosis.
2. Cases of jaundice, to determine the underlying pathology.
3. Cancer of stomach, rectum, colon and liver, to determine operability based on presence of metastases to peritoneum, lymph nodes or liver.
4. Suspected inoperable malignancy, to avoid a "fruitless" laparotomy.
5. Suspected ectopic pregnancy or ovarian malignancy.
6. Undiagnosed abdominal tumors.
7. Stab or crushing wounds of the abdomen—to determine intraperitoneal bleeding without delay.

Contraindications

Peritoneoscopy is contraindicated in any acute abdominal condition, peritonitis, abscess in the peritoneal cavity, intestinal obstruction, or paralytic ileus. The duodenum is not seen, nor is the kidney, although a tumor of the kidney may appear as a retroperitoneal mass. Carcinoma of the head of the pancreas may also occasionally be seen as a retroperitoneal mass; here the diagnosis may be helped by a dilated gall bladder or biliary cirrhosis. Age is not a contraindication; peritoneoscopy has been done in babies under one year of age.

Peritoneoscopy is a relatively safe procedure for anyone trained in the fundamentals of surgery, and in experienced hands, it should be as safe as doing an abdominal paracentesis. The value of peritoneoscopy lies in its ease of application, and the differential diagnostic possibilities obtained through this direct eye-controlled method of examination. Questionable cases can be diagnosed without delay, especially when these cases may possibly be suffering from grave pathology. Over fifty different abdominal conditions have been seen through the peritoneoscope. In several cases, the clinical diagnosis appeared self-evident until altered by peritoneoscopy.

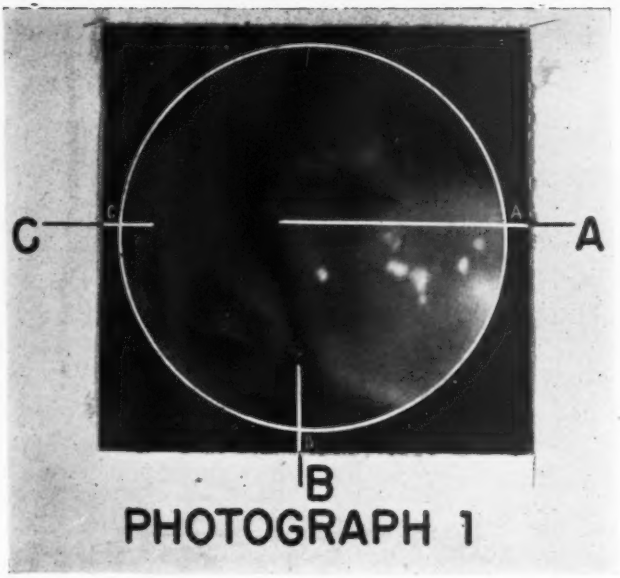
Gastroenterology

Peritoneoscopy is of value in the fields of gastroenterology, surgery and gynecology. In gastroenterology peritoneoscopy has special value. In cases of ascites of non-cardiac origin, which require paracentesis, the instrument can be used and after the fluid is aspirated, air injected and the intraperitoneal organs examined. I feel that eventually it will be routine to perform a peritoneoscopy in all cases of ascites in order to (a) suction off the fluid more completely, (b) confirm the clinical diagnosis, and (c) possibly add to the diagnosis.

In view of the fact that a diagnosis of early cirrhosis of the liver is quite difficult, peritoneoscopy can be used to detect early liver changes, with or without the aid of a biopsy. The ease and safety with which this procedure can be done, as far as the physician and patient are concerned, makes research possible in evaluating the value of various therapies for cirrhosis of the liver. The plan: Visualize the liver, institute a particular form of therapy, and then observe the liver again several months later for any improvement. Repeated peritoneoscopies in tuberculous peritonitis may teach us more about the course of the disease.

Surgery

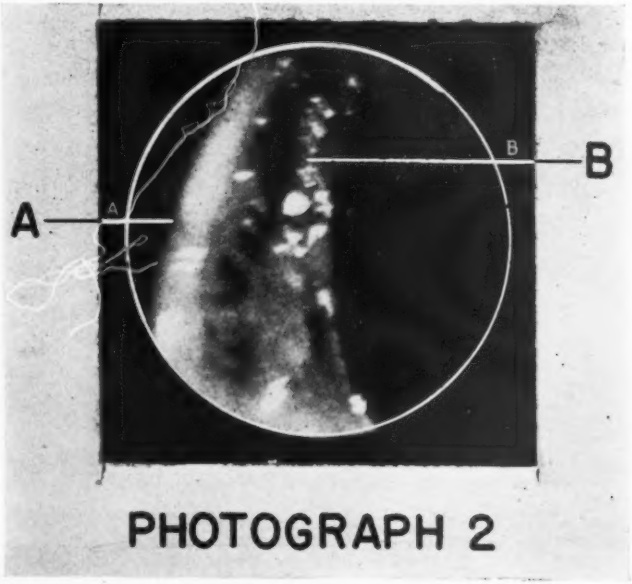
In the field of surgery: It is a simple method in determining operability of malignant lesions of the stomach and colon. The method may be used in cases that are poor surgical risks. By transillumination of the stomach, rectum or sigmoid, with the aid of a light placed within the lumen of these organs, one can gain a good idea as to the extent of the malignant growth. In the stomach, careful observation of the peristaltic waves may also give an idea as to the extent of the tumor. Peritoneoscopy is helpful in differentiating traumatic peritonism from true intraperitoneal bleeding. A patient with an abdominal injury may present tenderness and rigidity and varying degrees of shock, so that the physician will frequently be at a loss in differentiating an injury to the abdominal wall from true intraperitoneal bleeding. The latter, of cours, would require immediate surgery.



PHOTOGRAPH 1

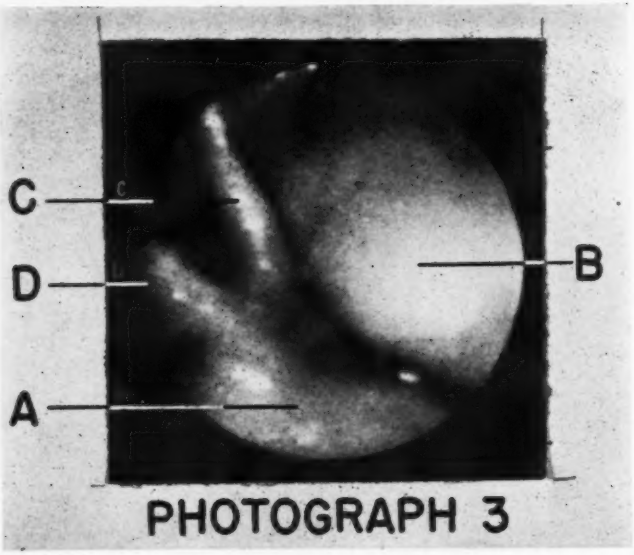
By means of a special camera which is clamped on to the eyepiece of the peritoneoscope, I took the following photographs in color of living patients. As far as I know these are the only actual photographs ever taken in this manner. (The original photographs are in color but are here reproduced in black and white).

Photograph 1, shows an advanced hobnail liver cirrhosis (left lobe). The clinical diagnosis before peritoneoscopy was peritoneal carcinomatosis. A. Hobnail liver surface. B. Liver edge. C. Falciform ligament.

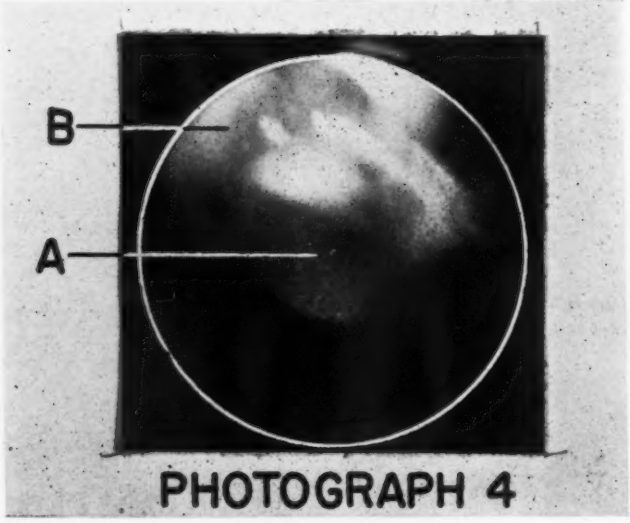


PHOTOGRAPH 2

Photograph 2, shows well vascularized peritoneal adhesion, containing many veins. It would be dangerous to cut this adhesion due to bleeding. A. Rounded free edge of adhesion. B. Many small veins.



Photograph 3, shows a normal female pelvis and is included in order to demonstrate how clearly the viscera can be seen through the peritoneoscope, and also that with experience the observer is always oriented. A. Left cornu of uterus. B. Bladder. C. Round ligament. D. Fallopian tube (left).



Photograph 4, shows a small ovarian cyst which clinically could have been benign or malignant. Peritoneoscopy showed the ovarian cyst to be benign. Had this cyst been of appreciable size its contents could have been aspirated under direct vision with a needle inserted through the abdominal wall. A. Ovarian cyst. B. Pelvic peritoneum.

Peritoneoscopy can rapidly and unequivocably determine penetration of stab or gunshot wounds of the abdomen.

Gynecology

In the field of gynecology: The operability of carcinoma of the ovary can be determined and a biopsy can be taken. The diagnosis of unruptured tubal pregnancy has always baffled the clinician, and this method affords a means of early diagnosis before the tragic stage.

Surgical Peritoneoscopy

Although most of the work on peritoneoscopy has been done in recent years, the procedure has already been used therapeutically. Adhesions have been successfully divided and attempts are being made to produce sterility by the use of a coagulating needle inserted into the isthmus of the tubes. Ovarian cysts and liver abscesses have been aspirated.

The problem as to whether a pelvic tumor is an ovarian carcinoma or a uterine fibroid can be easily settled. Ovarian carcinoma would require immediate operation but symptomless fibroids might not need laparotomy. There are many possible uses for this procedure, and its value for making accurate diagnoses probably will increase.

A question frequently asked is whether entering the peritoneum with the peritoneoscope is not attended with the same risk as doing an exploratory laparotomy. It should be carefully explained that the procedure of peritoneoscopy is comparable to an abdominal paracentesis.

There is practically no danger of fatality following a peritoneoscopy. A one cm. incision is made and a local anesthetic is used. The instrument is almost fifteen inches in length and so by maneuvering the telescope and the pocket of air, the observer can visualize the area of a circle whose radius is fifteen inches. In this way, through a one cm. incision, the whole abdomen can be visualized from the undersurface of the diaphragm down into the pelvis.

The success of a peritoneoscopic examination depends not only upon the skill in the technique of the procedure, but also upon the observer's ability and experience in recognizing pathology through the instrument.

Peritoneoscopy is becoming a widely accepted diagnostic aid when its use is limited to its indications.

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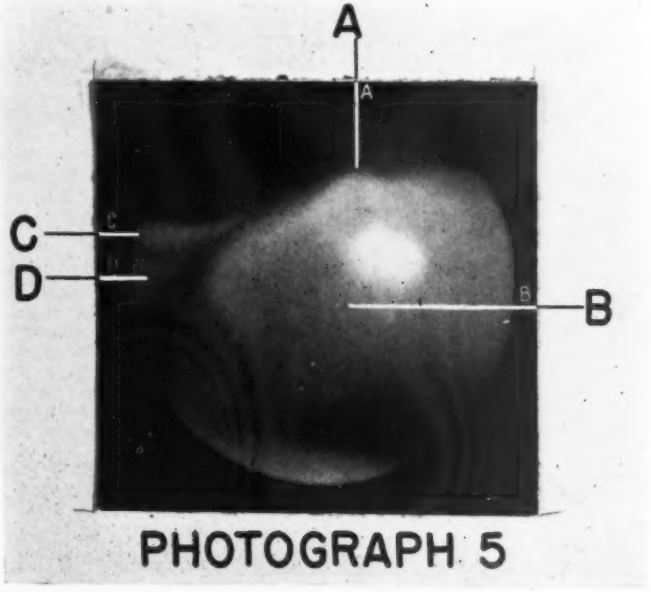

Photograph 5, shows a small subserous uterine fibroid and illustrates how early lesions may be diagnosed through peritoneoscopy. A. Fibroid. B. Fundus of uterus. C. Round ligament (left). D. Broad ligament (left).

A Case of Thrombophlebitis and Pulmonary Embolism*

By CLARENCE L. WHEATON, M.D., *Chicago, Illinois*
Attending Physician, Illinois Masonic Hospital

THE patient is 75 years of age, in good spirits and does not appear ill. His chief complaint is very painful sciatica of the left leg.

Last summer he had a few slight attacks of cramps in the calf of the left leg. These would disappear after massage. There were no symptoms until November 12, 1943, at which time the left leg started to become painful, beginning at the ankle and working its way up through the left calf to the popliteal fossa. The pain increased during the day and became progressively worse. The following night, on account of the very severe pain, the leg was rubbed with a liniment, some relief resulted. Monday, January 17, the pain became more intense and was especially severe when the patient attempted to stand on the foot. The patient was brought to the hospital in an ambulance.

Previous history: Thirty-five years ago patient had a severe attack of rheumatism; typhoid and malaria 21 years ago; smallpox 35 years ago; gonorrhea 25 years ago.

Physical Examination: Pupils react to light and accommodation. Neck, lungs, and abdomen are negative to examination. The heart is of normal size; there are no murmurs.

Extremities: Swelling of left leg is noted. This has been constant, according to statement of patient, for many years. Pitting edema is present all along the left lower leg; tenderness on palpation, mainly in the popliteal region and below the inguinal ligament in the region of the femoral vessels is evident.

Blood pressure at this time is 105/85. Temperature is 101.2°F. upon admission (it returned to normal on the second day and remained so until the time of his death).

The diagnosis made at this time was: *Thrombophlebitis of the left leg.*

*Presented at Clinical Conference, Illinois Masonic Hospital, March 2, 1944.

About 7 p.m. the evening of the 28th (16 days after onset) patient asked for the bedpan. While straining at stool he suddenly had an attack of severe upper abdominal pain, became very pale, had marked dyspnea, and expired within five minutes despite administration of cardiac stimulants.

Course: January 22, temperature 101.2°, pulse 100, respirations 20. January 23, temperature normal. January 25, temperature 100°, then returned to normal and remained there.

Laboratory Reports; Urine; Specific gravity 1.023; negative. No occult blood. N.P.N. 35. Kahn reaction negative. Red blood cells count 3,850,000 leukocytes 13,900. Electrocardiogram: Remarkably normal for a patient of his age.

Postmortem Report: The inferior vena cava and portal vein have smooth linings and contain clotted blood except that a mottled red and grayish mass projects from the right atrium, resembling a thrombosis, into the inferior vena cava.

Heart weighs 370 gms. All the valves are smooth and normal in shape. The myocardium is everywhere reddish and brown in color. The coronary arteries have smooth linings. The right coronary is much larger than normal and sends a branch across the posterior interventricular groove to supply a portion of the posterior wall of the left ventricle. In the right heart chamber, there lie free, three mottled red-gray masses which laid end to end measure 13 cm in length. Similar masses lie in the pulmonary artery and both its branches, practically occluding the entire right pulmonary artery, and also the pulmonary artery to the left lower lobe. The pulmonary artery to the left upper lobe is occluded by a rather firmly adherent yellowish mass approximately 10x12x40 mm.

Diagnosis; Pulmonary embolism.

Medicine is the only profession that labors incessantly to destroy the reason for its own existence.—*Bryce, 1914.*

Filariasis

By STOCKTON KIMBALL, M.D.,* *Buffalo, N. Y.*

ONE of the important military diseases of this war, *filariasis*, in an infestation of the human body by a round worm. There are several varieties of filariae which invade different parts of the body and produce different symptoms. In this war, the most important varieties have been Wuchereria bancrofti and Wuchereria malayi. The adult forms of these two parasites live in the lymphatics where they cause *lymphangitic, adenitis* and, after repeated reinfections, *elephantiasis*. It should be remarked at once that, due to the policy of withdrawing any infected individual immediately and permanently from the tropics so that reinfection becomes impossible, *elephantiasis has not occurred among American troops.*

For the purpose of this article, the term, filariasis, will be applied to indicate infestations with Wuchereria bancrofti. The other important filarial infestations will be mentioned briefly at the end of the article.

Distribution

Filariasis is a mosquito borne disease. It is very generally distributed throughout all tropical and subtropical regions and is especially prevalent in the South Pacific Islands, in some of which as much as 80% of the inhabitants are known to be infected. Almost any kind of mosquito can carry the disease. Over forty species of mosquito have been actually proven to do so. These include culicine and anophelene (the malaria transmitting) mosquitoes.

Life Cycle

The adult male and female worms mature and mate in the lymphatics of the human host, especially in the inguinal and scrotal areas. The female here gives birth to tremendous numbers of the small prelarval forms, called microfilariae. These microfilariae may remain in situ or they may migrate into the circulating blood where they may be seen on examination of a blood smear. These microfilariae in the blood cause no symptoms and produce no pathological reactions. They are not capable of transmitting the disease until they go through metamorphosis within the mosquito. As the microfilariae in the donor's blood will be killed in the blood stream of the recipient, transfusion of blood containing microfilariae will not transmit the infection.

When a mosquito bites an infected individual, she sucks up these prelarval microfilariae. These penetrate the stomach of the mosquito and enter the thoracic muscles. There they go through several molts and develop into infective larval forms which migrate into the proboscis of the mosquito. When the mosquito bites a new individual the infective larvae squirm out through the mosquito's proboscis and enter the new host through the hole in the skin made by the mosquito's bite. The infective larvae thus introduced into a new human host do not themselves cause symptoms.

Location of Involved Area

They do not get into the circulating blood but migrate directly into the lympahtic channels and, through these, to the regional lymph nodes. *The distribution of the infection, therefore, depends upon the location of the bite.* The inguinal region, the legs and the scrotum are most frequently involved, but the arms and other portions of the body may likewise be affected. In these regional lymph nodes, the larval forms mature into adult male and female worms which mate and produce new crops of microfilariae. It has been supposed that this maturation requires a full year, but sufficient numbers of cases have occured among troops stationed for only a few months in a tropical area to bring this length of time into question.

One peculiarity about filariasis is that in most portions of the world, the microfilariae can be found in the peripheral circulating blood only during the night. They can be transmitted, therefore, only via night-biting mosquitoes. The cause for this nocturnal periodicity is unknown, nor is it universally true, for in Samoa and some of the other South Sea Islands, the microfilariae are present by day as well as by night and may be transmitted by day-biting mosquitoes also.

Clinical Picture

The clinical picture may be divided into two forms, early (acute) and late (chronic). The late forms present in native populations are dramatic and give rise to the descriptive term, elephantiasis. Massive enlargement of the scrotum,

* Department of Medicine, University of Buffalo, School of Medicine.

breasts, legs, or arms are not uncommon. Multiple portions of the body may be affected. In Samoa, 60% of the male population has been reported to show elephantiasis. Scrotal sacs the size of footballs or basketballs are common sights. Even in this region, elephantiasis is rarely seen before the age of twenty. This is because the elephantiasis results from repeated mosquito bitings and repeated reinfections. No cases of *elephantiasis* have been reported in American troops.

Symptoms

The early form of the disease is characterized by transitory, recurring and sometimes migrating *lymphangitis, adenitis* and by *fever* of varying degree, accompanied occasionally by urticaria. These symptoms result to some extent from lymphatic obstruction but to a greater extent from inflammatory reaction to the presence of the worm, especially to the products of disintegration of a dead worm. The pathology of the disease is, therefore, one of lymphatic obstruction and of inflammation and, in the late elephantiasis cases, of added deposition of connective tissue. It is the adult worm, only, which causes the pathological changes.

Recurrences

As soon as any of these early manifestations appear in any member of the American armed forces stationed in the tropics, he is immediately returned to a military hospital in the United States, and is never thereafter returned to tropical duty. Observation of the returned soldier has shown that there is a tendency for lymphangitis and adenitis to subside with rest and to recur on activity over a period of many months. This may lead to a long period of disability but, after a sufficient period of rest, most men can be returned, first, to limited, and, later, to active duty.

Psychic Disturbance

In addition to the actual swelling noted, there is a strong psychic disturbance in these patients. Most of them have seen elephantiasis in the natives, including the massive scrotal involvement, and are not unnaturally fearful of the effects of the disease on future health and sexual ability.

Treatment

The return of these men to health is a matter of both physical and psychological upbuilding. If they return to duty under pleasant surroundings, these symptoms generally disappear. Because the microfilariae cannot develop into new adults and so lead to increasing involvement without having passed through metamorphosis in a mosquito, the patients can be assured that even if the infection remains in the body, elephantiasis will not result. Consequently *the degree of involvement in any patient not exposed to reinfection is self limited.*

Specific therapeutic measures, aside from rest, have not to date proven very efficacious. X-ray therapy has been tried with some favorable reports. Brown has reported good results in the Virgin Islands with a new drug, lithium antimony thiomalate. This destroys the microfilariae in the circulating blood but not the adult worms, and so has not been found to relieve the symptoms of lymphangitis.

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Technique of Blood Smear

When microfilariae are present in the circulating blood, they may best be demonstreated in a *thick blood film.* A microfilaria is about the diameter of a small lymphocyte and will extend more than across the diameter of an oil immersion field. It will be clearly seen by high dry and by low power magnifications. Due to its size, it will often be scraped or washed out of the usual thin blood smear. A proper thick blood smear is made, as in a search for malaria, by catching two to three small drops of blood on the end of a clean glass slide and stirring and spreading them with the corner of another slide for thirty seconds over an area the size of a dime. The thick smear should not be too thick. One should be able to read fine print through it. The slide should be allowed to dry over night upside down and should be stained next day with a very dilute (1:50) Giemsa stain for three-quarters of an hour. In cases where nocturnal periodicity is present, it may be necessary to make the smear at midnight, as daytime preparations will generally be nega-

tive. *Eosinophilia* is a frequent finding.

Diagnosis ordinarily is made on a clinical, not on a laboratory basis: a history of residence in a filarial territory followed by the appearance of a transitory, migratory lymphangitis and adenitis. There is a tendency for the lymphangitis to extend centrifugally from the center toward the extremity, instead of in the opposite, or centripetal, direction of lymphangitis generally associated with infection.

Differential Diagnosis

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Possible Foci in the United States

It is possible, though not very probable, that local endemic foci of this disease may become established in the United Sates. The mosquitoes are here but the number of infected hosts is not likely to be sufficient. This is a matter of public health. Such a focus at one time was present in Charleston, South Carolina, but has now entirely disappeared.

Other Forms of Filarial Infection

There are four other filaria which are pathogenic for man:

1. Wuchereria malayi which differs slightly from Wuchereria bancrofti and is more localized in its distribution, but which has the same life cycle and causes the same symptoms as Wuchereria bancrofti.

2. Onchocerca volvulus, transmitted by the black fly, which causes subcutaneous nodules in which the adult worms may be found. The microfilariae are found in the subcutaneous tissues, not in the blood stream. Onchocerciasis is limited in distribution to Central America and Central Africa. In a high percentage of cases, persistence of this infection leads to the development of blindness. Treatment of the disease consists in surgical removal, under local anesthesia, of the subcutaneous nodules.

3. Loa loa, transmitted by the deer fly, chrysops, is found extensively in West and Central Africa. Microfilariae are found in the peripheral blood only during the day. The adult worms are subcutaneous in position and produce transitory, so-called "calibar," swellings under the skin. The adult worms wander across or into the eye and are, therefore, often known as "eye worms." They may be treated by removal of the worms.

4. Drancunculus medinensis, the guinea worm, probably represents the "fiery serpent" of Biblical reference. The adult worm is long, subcutaneous in position and produces symptoms of local irritation. The head of the worm projects into a blister under the skin. When the top of this blister is removed under water, microfilariae are released into the water. They penetrate into a cyclops, a small crayfish, which is the intermediary host. Ingestion of water containing the infected cyclops is the means by which man obtains the infection. The larvae are released in the stomach, penetrate through into the tissues and, hence, reach the subcutaneous tissue. Treatment consists in surgical removal of the adult worm or in the native habit of slowly twisting the worm out onto a stick. The latter is not altogether a safe procedure, because, should the worm break off, considerable local inflammation would occur.

5. There are two other filariae, mansonella ozzardia and acanthocheilonema perstans. They are nonpathogenic for man. Their importance lies only in the fact that their microfilariae may be found in the circulating blood and might cause confusion with the pathogenic microfilariae of Wuchereria bancrofti or of loa loa. Differentiation can readily be made microscopically by one familiar with the various forms. It is anticipated that it is only filariasis due to Wuchereria bancrofti, or, occasionally, to Wuchereria malayi, which is at all likely to come under the observation of civilian practitioners in this country.

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breasts, legs, or arms are not uncommon. Multiple portions of the body may be affected. In Samoa, 60% of the male population has been reported to show elephantiasis. Scrotal sacs the size of footballs or basketballs are common sights. Even in this region, elephantiasis is rarely seen before the age of twenty. This is because the elephantiasis results from repeated mosquito bitings and repeated reinfections. No cases of *elephantiasis* have been reported in American troops.

Symptoms

The early form of the disease is characterized by transitory, recurring and sometimes migrating *lymphangitis, adenitis* and by *fever* of varying degree, accompanied occasionally by urticaria. These symptoms result to some extent from lymphatic obstruction but to a greater extent from inflammatory reaction to the presence of the worm, especially to the products of disintegration of a dead worm. The pathology of the disease is, therefore, one of lymphatic obstruction and of inflammation and, in the late elephantiasis cases, of added deposition of connective tissue. It is the adult worm, only, which causes the pathological changes.

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Treatment of Leukorrhea*

Definition: Non-bloody vaginal discharges.

Significance: Evidence of alteration in physiological or pathological processes.
Proper diagnosis is essential for success in treatment.
Not all leukorrhea requires therapy.

Diagnosis by: History—physical—and pelvic examination.
Gross and microscopic study of discharge.

Technique: 1. Gross character and pH (nitrazene)
2. Direct microscopic examination of float.
3. Gram stain of dried smear.

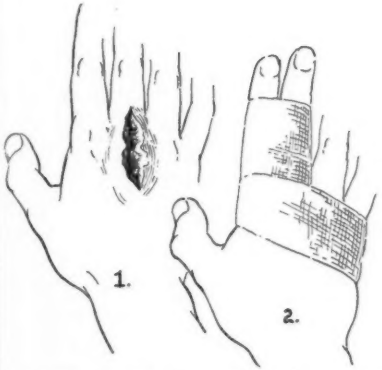
Classification & Treatment

Type & Etiology	Characteristics & Diagnosis	Treatment
A. *Physiological discharges*	Normal secretion increased in amount	
1. Alteration in estrin	General Findings White color pH—6 or below Epithelial cells 4+ Leukocytes 1-2+ Slight acid odor Tenacious Non-irritating	Reassurance Astringent (acid) douches
2. Sexual maladjustment		Education
3. Pregnaphobia		Contraception
4. Psychoneurosis		Psychotherapy Astringent douches
5. Systemic infections		Douches, cleansing acid
6. Hyperexudative women		Astringent douches, p.r.n. Cervical cautery
B. *Pathological* Discharges	Abnormal secretion	
1. Bacterial infections (Acute or chr.)	General Findings Pus & irritation pH above 6 Epithelial cells 2+ Leukocytes 4+ Foul odor Thin & watery	In prepubertal and menopausal patients Cornify with estrogen.
a. Gonococcus	Thick yellow pus Gram stain is positive	Acid douches Sulfathiazole Silver and mercury
b. Streptococcus	Thin & watery Strep. on stain	ibid.
2. Parastic a. Trichomonas	Foamy, green Motile organisms	Acid, CHO, parasiticidal Silver, arsenic, quinine
b. Yeast-mould Fungi, etc.	Gray plaques Granulations pH 5-7 Gram stain—spores or mycelia	Alkaline douches Analine dye (1% aqueous Gentian) Iodides
c. Other parasites (worms, myiasis, etc.)		Cleanliness, acid douches
3. Foreign bodies Intrauterine Diaphragms Cotton ball, sponge Tampons, etc.	Foul & copious granulation	Prepuberty & menopause— Acid, CHO douches and cornify suppositories
4. Benign a. Erosion & eversion Cystic degeneration	Discharge nearly normal Diagnosis by inspection	Cautery (Heat, Ag No_3, Sulfonic acid) Conization Acid douches
b. Polyps (cervical or endometrial)	Thin, purulent discharge. Cervix patulous Diagnosis by inspection or dilation and curettage	Dilation and curettage and remove polyps Cauterize base Acid douches
c. Upper pelvic lesions and hydrosalpinx	History Pelvic examination	Pelvic heat Foreign protein Surgery
5. Malignancy Not considered here	History—pelvic examination Biopsy	Surgery and radiation

*Notes taken by R. L. Gorrell, M.D. at University of Nebraska School of Medicine.

Hand Infections and Injuries

Adapted from SUMNER L. KOCH, M. D..
Northwestern University School of Medicine,
Chicago, Illinois.

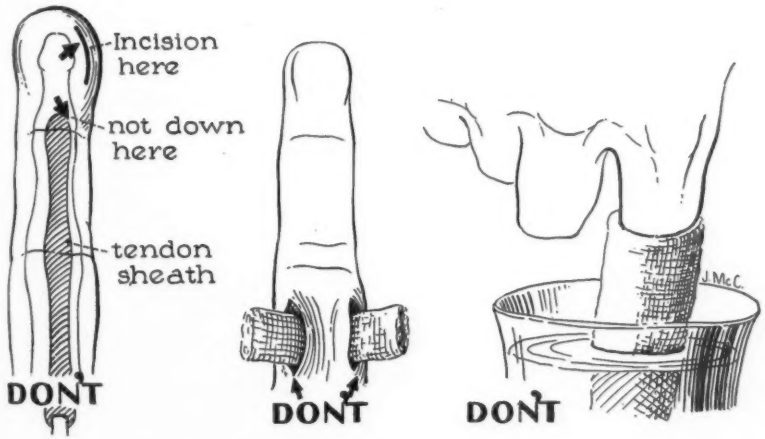


1. Wound of Hand. Every injury of the hand is important, no matter how small.

2. First Aid: The application of a sterile dressing and compression bandage—*nothing more*.

3. Conversion of an open wound into a clean wound by simply cleansing with plain white soap, sterile water, soft cotton. Surgeon, nurse, patient and everyone is masked. Surgeon and nurse wear gloves.

Reason for wounds becoming infected: (a) Spray of bacteria from unmasked nose and mouth of surgeon, nurse and by standers. (b) Dipping instruments in antiseptic solution. (Should be entirely immersed for several hours.)

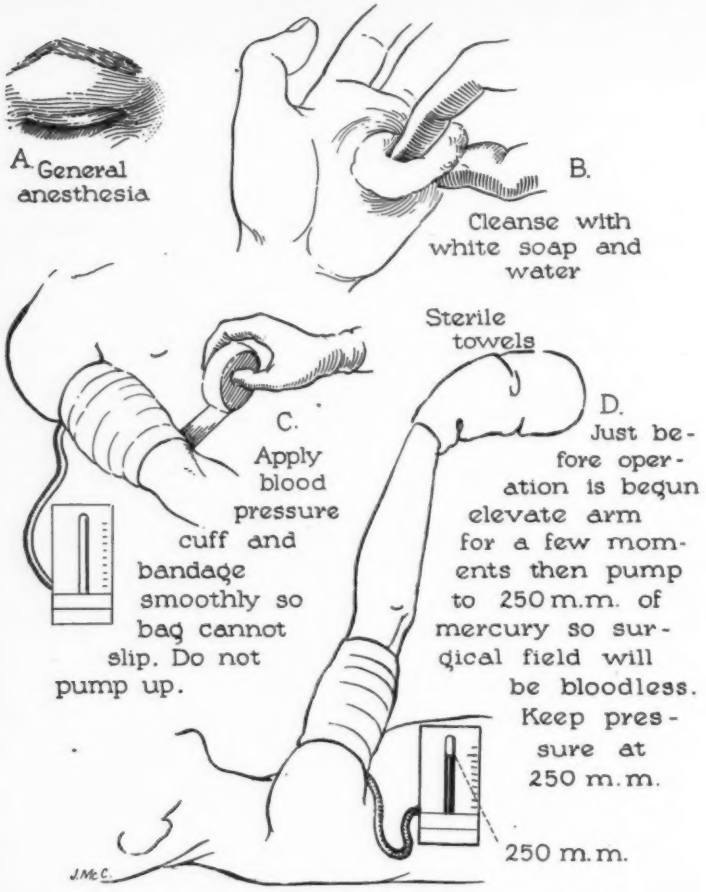


4. Dont's: In an injury of a felon, *don't injure tendon* or a tendon sheath; infection may follow.

Don't make incisions on two sides of a finger or hand because healing takes longer.

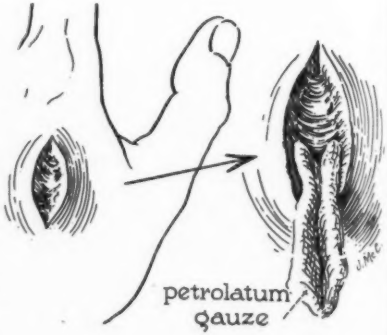
Don't use through-and-through drains as necrosis of tendons and sheaths may follow.

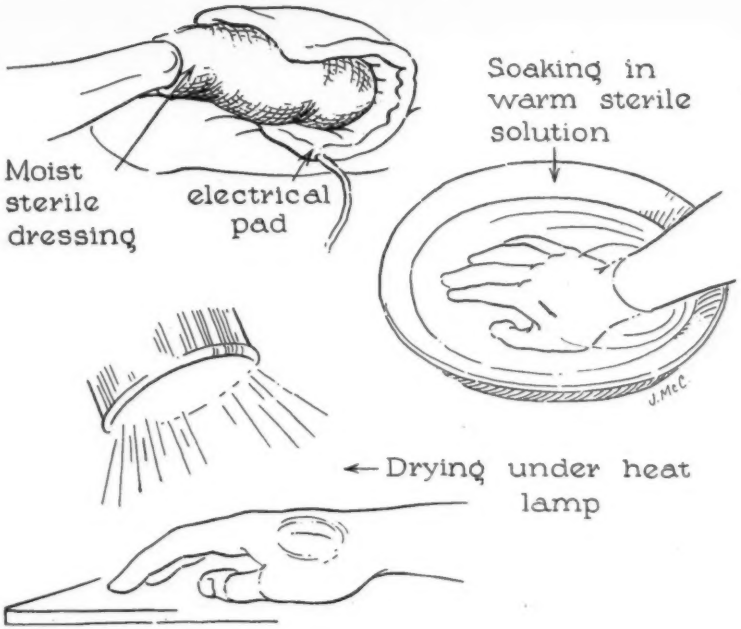
Don't have the patient "soak" the dressings at home.


A. General anesthesia
B.
Cleanse with white soap and water
Sterile towels
C.
Apply blood pressure cuff and bandage smoothly so bag cannot slip. Do not pump up.
D.
Just before operation is begun elevate arm for a few moments then pump to 250 m.m. of mercury so surgical field will be bloodless. Keep pressure at 250 m.m.
250 m.m.
J.McC.

5. Suggestions in handling hand infections.
   (*A*) General Anesthesia.
   (*B*) Cleanse with cotton, white soap and sterile water. (Infection in palm of hand.)
   (*C*) Apply blood pressure cuff and bandage smoothly so bag cannot slip. Do not pump it up.
   (*D*) Just before the operation is begun, elevate arm for a few moments then pump up to 250 mm. of mercury so that the surgical field will be bloodless. Keep pressure at 250 mm.

6. After making incision, place a wedge of soft gauze saturated with petrolatum (sterile) in the angle of the wound. Remove drain in 24 to 48 hours—*Don't* put in new drains.



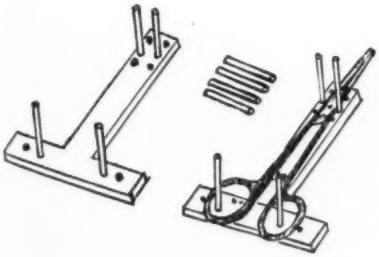


7. Suggestions for postoperative care.

Elevate the hand, applying external heat and keep the dressing moist for 2 to 4 days after incision.

Beginning 3 to 4 days after operation, wet dressings are stopped; intermittent soakings in warm sterile solutions, followed by drying under a heat lamp, are begun.

T-Stack for Artery Forceps



T-stack for artery forceps showing pins and forceps in place.

A simple device to keep artery forceps in order on the Mayo table during operations. The T is made of Quarter-inch steel, 1 inch wide with a horizontal bar 3½ inches long, a perpendicular bar 5½ inches long. Pins 2½ inches long are inserted as shown in the sketch. By drilling two sets of holes in the horizontal bar, both the 4½-inch and the larger artery forceps may be stacked.

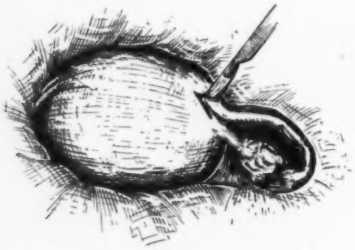
The device may be useful, particularly aboard ship, since the artery forceps are held firmly in place during rough weather.—FRANKLIN E. HAGIE, M.D., *Journal of the Indian State Medical Association*. Vol. 37, No. 7, 359, July, 1944.

Simple Surgical Treatment of Salpingitis

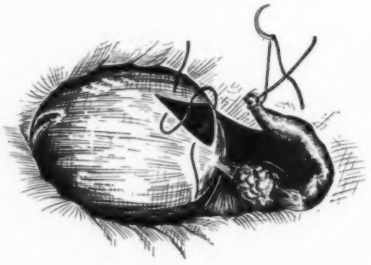
The resection of uterine cornu (see illustrations) is advocated for chronic or recurrent salpingitis.

This operation has been perfomed 1,000 times in the last ten years at the Harlem Hospital (New York City) with a resulting 85 per cent clinical cures. Tubal reinfection is prevented, as the tubes themselves tend to become sterile if further infection does not enter by continuity through the uterus.

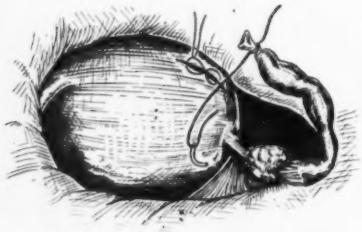
Treatment for gonorrhea of the cervix, skene's glands and Bartholin's glands is still necessary.—Henry Falk, M.D., in *West J. Surg.*, July 1944.



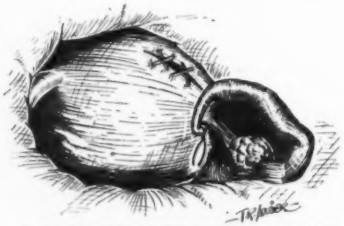
1. Incising the uterine end of the tube.



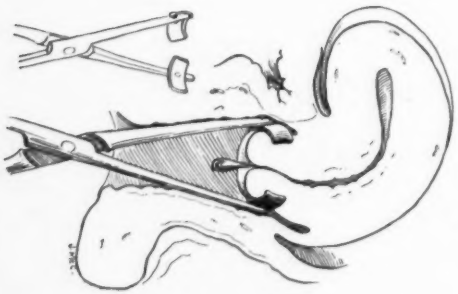
2. A figure of eight closes the uterine incision.



3. The ligated tube is ready to be buried.



4. The proximal end of the tube is buried by tying the suture.



Cervix Forceps

Cervix forceps to squeeze secretion from the cervical glands may be made from a "dressing forceps" or "utility forceps" for picking up sterilized objects. The use of this forceps furnishes more material to be examined bacteriologically—Surg. G. P. Gannon (R) U.S.P.H.S., Denver, Colorado.

Use of Chlorophyll In Wound Healing and Suppurative Diseases*

CHLOROPHYLL is the coloring matter in green plants and leaves. The pigments which make up Chlorophyll are chemically the same regardless of their source. Chlorophyll and hemoglobin are closely related (structure of molecules). A green solution made from grass markedly stimulates healing and rapidly clears up suppuration.

Chlorophyll is not toxic. It can be applied to the eye, sinuses, wounds, bladder or pelvis of kidney. A purified solution can be injected intravenously or subcutaneously.

Action

Chlorophyll does not kill bacteria (bactericidal) and is only weakly bacteriostatic. Its action is due to a stimulation of the cells of the patient. When applied to a wound firm, fine granulation tissue is formed very rapidly. Chlorophyll stimulates red blood cells and hemoglobin regeneration in animals. It increases the basal metabolic rate in man. It dries up purulent drainage from osteomyelitis and infected sinuses within 48 to 72 hours ordinarily. A slight serous drainage persists.

Deodorizing

Within a few days foul smelling osteomyelitis and other suppurative cases were entirely odor free. Chlorophyll also has an ephedrine-like effect. Nose drops relieve the congestion and nasal obstruction of colds and sinusitis. There are no harmful effects on the ciliary activity of the nasal mucosa.

Chlorophyll vs. Penicillin

A series of alternate cases were tested with a chlorophyll solution alternating with a penicillin solution. Penicillin alone was not as effective as chlorophyll.

Clinical Experience

Most of the pilonidal cyst wounds healed promptly after prolonged failure. Acute empyema too, after treatment for three days no longer drained. Healing followed treatment in anal fistula, gunshot wounds, deep sinus tracts (curetting only for a piece of dead bone or for a foreign body) and intestinal fistula, both high and low, with skin erosion.

Burns

Burns treated with chlorophyll were less painful and granulation tissue appeared more promptly. Good results were also obtained with bed sores and infected compound fractures. Eye infections including purulent conjunctivitis, ulcer of the cornea, keratitis and other eye infections responded satisfactorily.

Colds

Chlorophyll shortens the course of the average cold and prevents or modifies the usual course of its complications. It decreases the odor, discharge and headache in chronic degenerative rhinitis. When given by the Proetz displacement method it causes a remission of chronic sinusitis. Draining ear drums healed rapidly after its local use.

Otitis Externa

Otitis externa (infection of outer ear canal), even when severe, was corrected by external use of chlorophyll irrigations. When used as an irrigating solution in the bladder or kidney pelvis, it cleans up pus containing urine. It is of no benefit in cystitis or non-specific urethritis.

It may be of great value in trichomonas infections of the vagina.

It was very effective in relieving pain and tightening up teeth infected by pyorrhea. The chlorophyll solution was applied on pads held to the teeth.

Summary

Chlorophyll solution heals wounds anywhere on the body. This has been proved by stopping chlorophyll and using other accepted methods for a period. Chlorophyll solution stops odor, stimulates the formation of firm, fine granulation tissue, relieves discomfort better than ordinary wet dressings, and stops discharge of pus.

Preparation of 16% Chlorophyll Solution

1. Place 200 gm. of pulverized Dessicated alfalfa (alfalfa meal) in an Ehrlenmeyer flask and cover with 500 cc. of acetone. Let stand 48 hours, corked.

2. Filter through cotton and wash with additional acetone to obtain about 400 cc. of filtrate.

3. Add 3/4 ounce of tincture of green soap and dilute to about 800 cc. with distilled water or normal saline solution. Autoclave in *uncovered* bottle to permit maximum amount of acetone to escape by evaporation.

4. After autoclaving, dilute to 1000 cc. with distilled water or normal saline solution.

5. Without the soap, the natural oils

* Presented at the War-Time Graduate Meeting, Denver, Colo., Mar. 17, 1945. Abstracted by R. L. Gorrell, M.D.

are extracted by the acetone and cause precipitation of the solution. Too much soap causes an opalescent precipitate which can be removed by filtering through cotton. Too little soap allows settling out of the solution but this can be restored by adding a small amount of soap. This solution deteriorates in sunlight or after about ten days.

6. Two flasks of tightly green leaves can be substituted for the alfalfa meal. Dull leaves should be used if possible because glossy leaves contain more wax and oils which require more soap to prevent precipitation of the solution.

7. A solution of ½ the concentration described above is clinically effective.

Treatment of Rheumatoid Arthritis

By L. M. LOCKIE, M.D., *Buffalo, New York*

IT MUST be kept in mind that *"arthritis" is a word signifying that something is abnormal in, or around a joint.* It is a symptom and not the disease. There are *many* causes for arthritis and it is the duty of the physician to try to determine the type and the cause of it before he is able to outline a program for treatment.

The American Rheumatism Association has adopted the following classification:

1. Specific Infectious Arthritis (organism known).
2. Arthritis of Rheumatic Fever.
3. Rheumatoid Arthritis (atrophic, proliferative and chronic, non-specific, Still's Disease and Marie-Strumpell spondylitis).
4. Osteo-arthritis (degenerative, hypertrophic).
5. Arthritis of immediate traumatic origin.
6. Arthritis of Gout.
7. Arthritis of neuropathic origin.
8. Neoplasms.
9. Miscellaneous forms in association with other diseases.

Inasmuch as rheumatoid arthritis is so common and can be so serious, treatment for this type of arthritis must be started early and carried on until all evidence of activity of the disease ceases. Treatment can be divided under definite headings:

Rest

In my experience, absolute rest in bed is indicated until the active process subsides. This may take weeks or months. It is comparable to the care of a patient with pulmonary tuberculosis. This means no bathroom privileges or to stand up for other reasons. The patient must have a firm mattress so that it may be necessary to insert a piece of ¾ inch plywood the size of the mattress between the springs and mattress. A pillow should be placed inside the covers at the foot of the bed so that the bedclothing will not touch the toes and that good position of the ankle and foot can be maintained. The patient may have one pillow for the head during the day and night but is allowed permission to sit up straight during mealtimes. Three times a day the pillow should be removed from the bed and, with the patient lying on his back, deep breathing exercises should be taken for five minutes to help straighten the spine and keep the shoulders back. Serial posterior plaster splints for knees may be necessary. Each joint should be put through a full range of motion at least once daily, if pain permits. It must be done without force.

Diet

A well balanced diet should be used. There is no specific food which should be omitted from the diet. If the patient is over-weight, the total number of calories should be cut down whereas the under-weight patient should be given additional calories. There are many fads regarding diet but as yet no satisfactory reasons have been advanced to have any kind of a diet except a well-balanced one.

Foci

During the early stages of the disease, all suspicious foci of infection should be removed. After the first six months, any radical operative procedure should be done only after careful consideration. Ninety percent of foci of infection which affect rheumatoid arthritis are located in the nose, throat and teeth.

Drugs

Aspirin is the drug of choice to relieve pain. Codeine should not be used because it causes constipation which disturbs many patients.

Most patients have anemia and for this large doses of iron or combination of liver and iron should be used.

Heat

The most effective form of heat to be used is that by means of an infra-red lamp. These can be purchased for a relatively small sum and used daily. Fifteen minutes, two or three times a day, at a distance of three feet from the bare skin, is satisfactory. Many patients will complain that they do not feel heat but infra-red heat should not be perceptible. Hot, wet towels often give marked relief when joints are acutely inflamed.

Vaccine

Due to the fact that hemolytic streptococcus agglutinins are found in the blood serum of many of these patients, it appears logical that small doses of such a vaccine should be used in conjunction with other forms of treatment. Very small doses such as five million organisms should be given subcutaneously every five to seven days. This must be carried on for months.

Vitamin D

Apparently, Vitamin D in large doses (100,000 to 300,000 units per day) help a certain percentage of patients. It improves their general well-being and the pain is less. Nausea and an increase in the frequency of urination are the two reactions most frequently encountered.

Gold

During the past ten years, injections of gold have been used on many patients with rheumatoid arthritis with success. It can be used intramuscularly in the form of Myochrysine or Solgonal B or intravenously as Gold and Sodium Thiosulfate. It should be given every five days, starting with 10 milligrams and increasing 10 milligrams each time until a maximum of 40 milligrams is reached per dose. This should be given until a total of 1000 milligrams have been administered. There are some reactions which should be watched for: Numbness and tingling of the tongue, upset gastrointestinal tract, dermatitis, evidence of kidney damage as shown by the presence of albumin and red blood cells in the urine, and purpuric spots in the skin. The urine should be examined the day following the injections. The blood count should be checked at the end of three weeks. If a reaction occurs, stop the gold.

Conclusion

The treatment of patients with rheumatoid arthritis requires great patience and ingenuity on the part of the physician. However, the reward of keeping a patient with rheumatoid arthritis from becoming crippled would seem to me to be reason enough to do everything possible to look after him.

40 North street.

Basal Temperature Graphs: An Aid in the Study of Sterility

By PENDLETON TOMPKINS, M.D., *Philadelphia, Pennsylvania*

IN recent years interest has been aroused by reports which show that the time of ovulation can be calculated with considerable accuracy from graphs of the daily basal body temperature. The importance of knowing the precise time of ovulation is obvious if one realizes that, regardless of all other factors involved in human fertility, *conception will occur only if insemination takes place close to the time when the ovum leaves the ovary.* It follows that a simple method for determining the date of ovulation is decidedly useful in the treatment of infertility.

Very briefly stated, the method is this: The patient takes her temperature each morning under "basal" conditions, that is, before rising, eating, drinking, or smoking. She records her temperature in the form of a graph. (Ordinary graph paper with lines five to the inch is suitable; one inch vertically is allowed for each degree Fahrenheit, and 1/5 inch horizontally for each day). Such a graph shows a typical curve during the menstrual cycle. The temperature is relatively low immediately after menstruation and remains low until about two weeks before the next period. About 14 days before the period the temperature shifts abruptly, often dropping one or two fifths of a degree from the previous level and the next day rising three or four fifths of a degree. This temperature shift takes place at, or about, the time of ovulation. After the temperature shift the level remains high until a day or so before menstruation when it falls to the lower level. The sequence is then repeated during the ensuing menstrual cycle. If the pa-

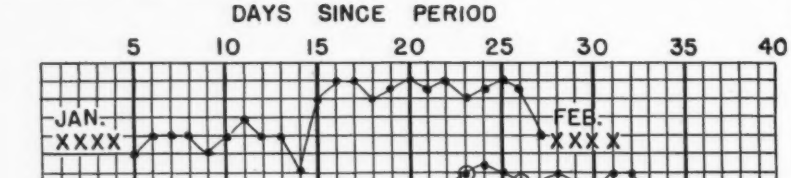
tient becomes pregnant the temperature will continue at the high "premenstrual" level for many weeks.

In order to economize in space and illustrations no actual samples of graphs will be shown. (These may be found easily in the literature: *J.A.M.A.* March 11, 1944, vol. 124, pp. 698-700). Instead of actual graphs a composite has been drawn to illustrate concisely the characteristics of the normal temperature curve and to exemplify its usefulness to the infertile couple.

Summary

Temperature graphs are valuable in pointing out the time of maximum fertility. The use of such graphs in no way diminishes the necessity for the usual sterility studies such as sperm counts, Rubin tests, or basal metabolism tests.

[The author expects to have samples of his grid-forms for patients' use available for distribution at an early date. Requests may be addressed to him at 807 Spruce street, Philadelphia 7, Pennsylvania.]



1°F
5 DAYS

XXXX = PERIOD ⊙ = COITUS

The January-February graph represents a 28-day cycle. Note that the "temperature-shift" occurs about 14 days before menstruation, and that the temperature level after the shift is about 3/5 degree higher than before the shift. One important point must be stressed: the shift (indicative of ovulation) occurs about 14 days *before* menstruation. Only in one special instance will it occur 14 days after menstruation, or "in the middle of the cycle", and that instance is the 28-day cycle. In cycles of any other length the interval from menstruation to the shift will be more or less than 14 days, but the interval from the shift to the next menstruation will be fixed at approximately 14 days. This fact is born out in the next graph.

The February-March cycle is drawn to illustrate a number of points. First, it will be seen that the cycle is 35 days. Accordingly the temperature shift occurred about the 21st day, or about one week later than it occurred the preceding month. (This agrees with our belief that ovulation precedes menstruation by approximately 14 days regardless of the length of the menstrual cycle). The second point is that, although intercourse (marked by the encircled dots) took place many times during the cycle, there was no opportunity for conception since intercourse did not coincide with the time of ovulation. Third it will be seen that there is no evidence that sexual stimulation instigates ovulation.

After a patient has kept a graph for one month she is instructed to concentrate upon the days when ovulation may be expected. The February-March graph shows that this was done and that intercourse took place on three occasions about 15 days after the period. These matings were unfruitful because, as it happened, ovulation did not occur until some days later.

The March graph illustrates the successful use of the system. There was a period of more than a week's abstinence preceding the time when ovulation was expected on the basis of the two previous graphs. Intercourse took place when the temperature first dropped below its regular level and again when it rose abruptly. It was reasonably certain, therefore, that coitus had occurred at the optimum time for fertilization. Subsequently the temperature remained high, the period was missed and the patient presumably had conceived.

Editorial

"Medical Authorities Condemn New Medical Thought"

By some strange quirk in human thought, men study hard to learn all that is to be known on a subject then all too frequently stop thinking and receiving of new ideas. Being authorities, it is all too easy for them to confuse their views with absolute truth.

Reading the files of old medical journals quickly disillusions one as to the reliability of well known men. For example, in 1883, N. S. Davis declared that germ theories of diseases and "germicide remedies" were running too rampant.[1]

The previous year, the report of the committee on Practical Medicine and Epidemics of the Illinois State Medical Society had regarded Koch's tubercle bacillus as being probably only one of the "mere accompaniments of certain deteriorative changes in organic matter and possessing no causative relation whatsoever."

"There is nothing in the present status of investigations on this subject that will either justify the isolation or quarantine of the victim of tuberculosis, the prompt disinfection of his sputa or the expectation of curing him by the use of germicides. These remarks apply equally well to nearly all the other diseases with which some variety of bacterial germ has been associated."[2]

How familiar this sounds even today, after reading the condemnation of Sister Kenny's treatment by old line orthopedic surgeons? Claude Beck's discovery of a method of providing a new blood supply to the heart muscle has been known for some years, yet it is either condemned or ignored and the victims of coronary sclerosis, numbering into the hundreds of thousands, are allowed to hurry toward death.

Ruddock's peritoneoscope permits more accurate diagnosis of certain abdominal conditions (cirrhosis, metastasis of cancer, pelvic and abdominal tumors, cause of ascites, tuberculous peritonitis, abdominal injuries) yet is being used by only two hundred physicians or surgeons today. Thousands of useless exploratory abdominal operations could have been prevented by its use.

Preclinical Sciences to Help You

We have always felt that new ideas in medicine should never be enthusiastically endorsed (as witness the all out acceptance of caudal analgesia in obstetrics) or severely condemned, but should be impartially studied and the results obtained should be compared with those resulting from older methods of treatment. For this reason, CLINICAL MEDICINE has published a number of articles concerning promising new ideas. Some have worked out, others have not.

The publication of an article does not mean endorsement of all the principles stated therein. Rather, it is presented for the consideration of the medical profession who must still do their own thinking. *Opinionated remarks by authorities are discouraged; proof never is.* By proof we mean facts and soundly established principles, not vague generalities covering many years of practice or study.

The physician who knows anatomy and physiology, is never at the mercy of the latest variety of treatment. He rejects external heat in the treatment of shock, for example not because it is now unfashionable, but because he realizes that it results in drawing more blood to the skin surface by vasodilatation, decreases the amount of circulating blood and thus increases shock.

To help the physician remember such facts, CLINICAL MEDICINE is working up a series of Graduate Courses on anatomy and physiology, which will be easy to grasp. Most of the material will be in illustrated form so that its significance will be apparent without prolonged study and it will be easy to remember. A number of authorities are collaborating in bringing these preclinical sciences to the clinician, to simplify his problems.

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[1]Moore, Josiah J.: A Century of Pathology. *Ill. S. Med. J.*, 1940, 77, 437.

[2]Winslow, C.-E. A.: The Contribution of Herman Biggs to Public Health. *Am. Rev. Tub.*, 1929, 20, 1.

It is better to spend one-half hour studying facts than five hours reading current fads in treatment.

✦

War is the only proper school of the surgeon.—*Hipocrates, 415 B.C.*

✦

Many Alcoholics Can Be Cured

Many psychiatrists feel that there is a personality conflict in persons who are chronic alcoholics and that it is dangerous to treat the symptoms without treating the underlying personality disorder.

"On the contrary, it is a fact that most alcoholics are, for all practical purposes, well adjusted so long as they do not drink; and those who are not, nevertheless get along better during sober periods."

"The histories given by wives of alcoholic husbands are nearly identical and absolutely characteristic: During periods of abstinence the alcoholic was a wonderful husband, father and provider."

"Recently, a 46 year old man was admitted to our hospital for treatment. The history revealed that, after many years of drinking, he had suffered an abortive delirium tremens which had 'scared hell' out of him. This episode was followed by 5 years of abstinence. In these five years, he had built up a business for himself, and was happy in his married life. As recreational activities, he enjoyed hunting and fishing. Induced to take a couple of drinks with friends, he immediately started to drink again excessively."

"The reasons why alcoholics improve in personality integration and adjustment when abstinence is enforced are obvious, as drinking merely furnished a pseudo-solution for their problems; the conflicts remained.*

"The conditioned-reflex treatment of alcoholics produces in the patient an aversion for the sight, smell and taste of alcoholic beverages by establishing a conditioned response with a nauseating drug as the stimulus."

Strangely enough, Kant reports that only 1 out of 23 patients objected to the distasteful and disagreeable treatment and all were astonished how quickly a craving for alcohol could change into an aversion. The patients remained in the hospital *voluntarily*. After the fourth treatment, it was safe and even desirable, to let the patient walk outside the hospital; there was no danger that he might be tempted to take a drink.

The suggestion is made that the chronic alcoholic return for 4 days of conditioned reflex treatments, three times yearly, to protect against relapses. The period during which he is abstinent permits adjustment, both mental and physical.—R. L. G.

*Kant, Fritz: The Conditioned-Reflex Treatment for Alcoholism. *Quart. J. Alcohol*, 5: 361-370 (Dec.) 1944.

✦

The "Family History" Is Important

When one takes a full history on a patient who is a diagnostic problem or who faces surgery, the family history is usually omitted or a few notes are made concerning causes of death of parents and relatives.

Henry B. Richardson, the author of "Patients Have Families," writes, "There is no medical reason why 'family history' should not justify its title by including data about the family life as well as the familiar incidence of disease. The marital history need not be limited to the health of the partners but should include a statement as to the conjugal relationship. The menstrual history can be used to show the reaction of the patient to the onset of menstruation, her preparation for this event and the general atmosphere in her family of childhood toward sex. The 'present illness' is an arbitrary division only in that it sets a definite date for the onset of illness."

Physicians tend to not only treat the patient's condition as if it were isolated from the individual himself, but also to ignore the influence of various members of the family on the patient. The family remarks and attitudes may in themselves bring on a peptic ulcer, for example.

Psychosomatic medicine is nothing new; it is merely a return to the old general practitioner's method of handling people, rather than concentrating on their diseases. *Life* magazine (Feb. 19, 1945) had a well written and illustrated article which will help to inform the public that many symptoms are caused by emotional influences rather than by physical disease.

This book summarizes what an internist learned about patients and their families, why illnesses did not clear up until basic situations were altered or understood, how other agencies may help the doctor in his search for the cause of puzzling symptoms, why people are more difficult to diagnose and treat now than 25 years ago, and furnishes illustrative case histories. It should be read by every physician, be he specialist or general practitioner.—R. L. G.

Diagnosis and Treatment:

Miscellaneous Notes*

Constipation

Constipation due to sigmoiditis: Sigmoid errors usually cause constipation. The sigmoid is seen to be redder than normal when viewed through the sigmoidoscope (sigmoiditis). The bowel is chronically relaxed and never empties completely. Distress results in the pelvis, lower back and abdomen. The sigmoid is tender and stiff; mucus and anal moisture are noted due to secondary proctitis, and bleeding may occur from eroded vessels. Soft, mushy stools and other symptoms of procto-sigmoiditis may appear. Pruritis and anal erythema or other eruption may follow.

Treatment: Instill iodoform, bismuth subcarbonate and equal parts of cod liver oil and cotton seed oil into the lower bowel, to be retained during the night. Give no laxatives of any type; saline enemata are permissible. Roughage with hemicellulose should be taken. If the condition is severe, instill equal parts of hydrastis, fluid icthyol and water, in the amount of four ounces, each morning.

Disorders of the Intestinal Tract: Constipation, or an increasing constipation, frequently has an organic basis. A sudden onset of loose stools is suggestive of a tumor of the intestine. Diarrhea is usually more significant. Anorexia (loss of appetite), loss of weight, pain and fever should be investigated thoroughly.

Abdominal Pain often results from a disturbance in intestinal motility (hypermotility, forcible contractions against an obstruction, or spasm of the intestinal wall). The pains are crampy and tend to occur immediately after eating (due to increased peristalsis). Pain appearing before defecation and relieved by expulsion of gas is due to an abnormality in the colon.

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High Blood Pressure

High blood pressure, paroxysmal: After exercise, a pounding headache, palpitation, dyspnea, epigastric pain, sense of impending death and blanched areas appear. Shock and coronary thrombosis may follow. Permanent hypertension may result later and the only method of making a correct diagnosis is to take a careful history of the attacks at the onset.

During the attack, peripheral vasoconstriction is very marked, pulse is weak, blood pressure is very high (300/100), the lips and toes are blanched (the vasoconstriction can be seen in the retinal vessels), the skin is cool and increased internal temperature is present. Adrenalin shock can be shown experimentally.

These patients avoid exercise as it results in an attack. The diagnosis is made by a history of typical attacks. Injection of air around the kidney and x-raying disclose an adrenal tumor (tumor of the medulla of the adrenal).

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Thyroid Therapy

Thyroid therapy of myxedema should be begun with small doses (¼ to ½ gr. daily) for the first month, and gradually increased until 1 to 2 gr. are given daily. Doses larger than 2 grains daily are rarely necessary and will not help. Poor tolerance to thyroid therapy may be due to pituitary disturbance (hypopituitarism or pituitary tumor) or adrenal

* These are brief notes taken at the New York State Medical Meeting, May 8-11, 1944, Colorado State Meeting Sept. 27-29, 1944, Southern Medical Assn. meeting, Nov. 15-19, 1944, and clinical notes taken by R. L. Gorrell during ward rounds, lectures and conferences at Charity Hospital and Tulane University School of Medicine, New Orleans, Louisiana.

disturbance. Thyroid extract may result in adrenal insufficiency.

Heart pain may be caused by myxedema. Routine thyroid extract treatment must be carefully managed. The hypercholesterolemia and atherosclerosis are probably related. If heart pain results from thyroid therapy, give 1/10 to 1/20 gr. of thyroid extract daily. One cannot predict accurately whether relief will be obtained by treatment. There is less chance of anginal pain or coronary thrombosis in younger patients and those with a shorter history of myxedema.

Dangers of thyroid treatment: Latent diabetes may become significant after thyroid extract therapy. Hyperthyroidism may appear. An occasional person becomes addicted to the drug, because of its use during reduction of weight, as a source of energy or as a stimulant. This addiction may be secret.

Thyroid addiction: Should be suspected in persons with clinical evidence of hyperthyroidism or auricular fibrillation but who have no enlargment of the thyroid gland (in true hyperthyroidism, the gland is palpable in 98 percent of cases). More iodine may be found in the urine. A true basal metabolic rate can't be taken while thyroid extract is being taken. In a few cases, patients continued to take thyroid extract secretly even while in the hospital. Within 10 days after stopping the thyroid, the pulse and basal metabolic rate (even as high as 80 plus) drops to normal.

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Stomach Bleeding

Bleeding from the stomach is not diagnostic of bleeding peptic ulcer, as stomach tumors (carcinoma, sarcoma, leiomyoma) also bleed. Even when the surgeon has the stomach opened, he may not be able to tell if a malignant tumor is present. One may determine beforehand by 3 weeks of carefully supervised medical treatment. Gastroscopy is valuable in the differential diagnosis.

◆

Pyloric Obstruction

Pyloric obstruction may be due 1. to contracture of scar tissue or to 2. pylorospasm, a reaction to high acidity and peptic ulcer. A gastroenterostomy relieves the fibrotic type of obstruction; medical therapy often relieves the pylorospasm, and any residual obstruction is treated surgically after three days of gastric intubation for drainage.

◆

Hiatus Hernia

A *hiatus hernia* (hernia of the stomach through the diaphragm) may be associated with an ulcer of the esophagus. Relief may be obtained by crushing the left phrenic nerve and thus relaxing the left leaf of the diaphragm.

◆

Sigmoidoscopy Technic

Sigmoidoscopy, technic of: 1. Empty the lower bowel with a laxative the night before or an enema immediately preceding examination, 2. place the patient in the knee-chest position or use the special proctoscopy table so that the bowel will fall away from the pelvis, 3. use a ⅝ inch instrument, from 12 to 16 inches in length (it is 7 inches from the anus to the sigmoid in the average adult). A small caliber, such as ½ inch is used to examine higher in the bowel. One enters the sigmoid through an opening to the left between folds. If the juction is tight, apply cotton soaked in saturated magnesium sulphate solution for ½ minute; relaxation will follow the scope can be advanced. Look for superficial ulcers, diverticuli, polyps, carcinoma, site of bleeding, varicose veins and chronic sigmoiditis.

◆

Apoplexy

Apoplexy of gradual onset and with increasing intracranial pressure is a surgical indication (Wallace B. Hamby, M.D., Buffalo, N.Y.). 16 blood clots have been removed from as many patients, of whom only 2 died. These hematomas were associated with hypertension, neoplasm, bacterial endocarditis, cerebral aneurysm and trauma. Skull fracture cases were excluded.

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Varicose Veins and Thrombophlebitis

It is now becoming fairly well known that the injection of novocaine solution into the lumbar sympathetic nerves (sympathetic block) will promptly stop the pain and edema of acute thrombophlebitis. One or two injections will cure the usual acute thrombophlebitis following surgery or delivery.

An older thrombophlebitis may be cured by three or four such injections or may require sympathectomy.

Ligation of varicose veins may be carried out, even if thrombophlebitis has

existed previously, but no injection should be given ito the veins.

Another reason for the effectiveness of sympathetic procaine injections: McMaster has found that lymph is forced on by arterial pulsations (by direct cannulation of arteries and lymphatics). Thrombophlebitis is accompanied by spasm of the arterioles. Injecting the sympathetic chain relieves the vasoconstriction, arterial pulsations return and with them the lymphatic flow, thus aiding in relieving edema.

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Hormones

Hormones, Disturbances of: An oversupply of hormone or abnormal hormones may be due to adrenal tumors. The adrenal gland produces male sex hormone (androgens), female sex hormones (estrogen, progesterone), corticosterone for metabolic maintenance. The adrenal regulates capillary permeability, renal and liver function, glycogen function and is one of the triad of sexual glands (pituitary, adrenal and ovaries or testes).

Masculinization: Adrenal tumors usually produce androgen and thus cause masculinization, either precocious in the young male or masculinization in the female.

Amenorrhea and impotence: May be due to excess secretion of metabolic steroids (Cushing's syndrome, without sexual changes). Psychiatric symptoms may be pronounced.

✦

Sore Tongue

A sore tongue may be due to a deficiency of B vitamins, especially nicotinic acid. Pernicious anemia and sprue must be ruled out. The cause of the bitter taste in the mouth, complained of by so many persons, has not been definitely established although it may be related to false teeth.

✦

Hypertensive Headaches: Treatment

Certain patients with high blood pressure and consequent nocturnal headaches are relieved by raising the head of the bed twelve inches on blocks.

✦

Shock Treated by Concentrated Plasma

Dried plasma, to which only ¼ or ½ of the usual amount of water has been added, may be injected intravenously very rapidly by using a 50 cc. syringe. This furnishes the patient in shock a solution which not only will stay inside the blood vessels and thus raise the blood pressure, but which will have a strong osmotic pressure pulling fluids back from the tissues into the capillaries.

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Vitamin Deficient Medical and Surgical Patients

The most common patient with vitamin or other nutritional lack seen by the physician is not the patient with the nutritional deficiency only, but rather the patient who has had diarrhea or vomiting for a number of days; the patient who eats very few foods because of digestive troubles or because of a diet for peptic ulcer; the patient with the decompensated heart, anorexia and a low intake of proteins (the low blood protein level accentuating the edema); the patient who requires a major surgical procedure and who is in a state of poor nutrition; and other patients suffering from medical or surgical conditions plus a more or less hidden lack of protein or vitamins. If the physician is not observant and watchful of the food that the patient eats, or that is injected, healing and recovery may be delayed or never occur.

✦

Is the Liver Enlarged?

Several students thought that they could feel an enlarged liver. The instructor wisely remarked, "If you can't be sure that you feel the liver or spleen, it probably is not palpable."

Unpublished studies carried on during peritoneoscopy show that in many instances the internist and other physicians had been confused by the rectus muscle and had believed that the liver or spleen was enlarged. With the peritoneoscope in place, one can easily measure the distance to the liver or spleen edge, or one can bring up the peritoneoscope light along the liver edge and show that the light is above the costal margin. CLINICAL MEDICINE will shortly publish a "Pictorial Section" on peritoneoscopy.—(Ed.)

✦

Insulin: When to Begin It

If tests of the urine do not show acetone or other ketone bodies, acetonuria is not present and insulin need not be begun at once. In fact, some authorities feel that if a diabetic patient maintains his weight, has no signs of acidosis (acetonuria), feels well and can eat a well balanced diet, the amount of sugar excreted in the urine is not important.

Charcot's Joints

Twin sisters were afflicted with Charcot's syphilitic destruction of their knee joints. An astute observer noted that their feet were cold. Knowing that an operation on their sympathetic nerves would cause a warming and vasodilatation in the legs, this operation was carried out in both. Not only did the legs become warm but the Charcot's joints began to heal. Possible cause: The syphilitic spinal cord lesion may have affected the vasodilator fibers, permitting the sympathetic vasoconstricting nerves to act unopposed.

◆

Riboflavin Deficiency: Eye Sign

Nutritionists have stated that new blood vessels branching out on the edges of the cornea are pathognomonic of riboflavin deficiency (vitamin B^2). Studies of a large group of students at Tulane University of New Orleans have shown this finding to be present in a number of apparently normal individuals. Administration of riboflavin caused the disappearance of the vessels in a few such persons.

◆

Myelogenous Leukemia Treatment

Good results are obtained by giving comparatively small doses of x-ray over the patients spleen, early in its course. When the white blood cell count does not drop markedly from such irradiation, one should use roentgen ray treatment of the bones.

◆

Hypertensive Cerebral Symptoms

We have obtained supplies from Dr. Upjohn of the Upjohn Company, Kalamazoo, Michigan. So far as I know they have not yet put it on the market. Or you may obtain it from the International Vitamin Corporation, 22 East 40th Street, New York, 16, N. Y.

If you were to write Dr. S. Ansbacher, Director, and mention my name, he would be glad I am sure to send you further information he may have. I think their price is about $12.00 per dozen bottles to the profession.—Lydia Allen DeVilbiss, M. D.

◆

Hoarseness and Hypothyroidism

HOARSENESS may be a symptom of hypothyroidism. Usually the lack of thyroid secretion is marked enough so that the patient feels cold much of the time and is mentally and physically slow.

◆

Saccharin: Use by Diabetics

Instead of telling the patient to use ¼ or ½ of a tablet for a cup of coffee, for example, have him dissolve a number of tablets in water and then use the water to sweeten to taste. Eight tablets may be dissolved in a glass of water.

◆

Vomiting and Diarrhea with Vitamin Deficiency

Lack of vitamins is often associated with anorexia, vomiting and diarrhea. This malnutrition may include lack of protein and certain salts.

◆

Herpes Zoster Treatment with Procaine

The injection of one per cent procaine (novocaine) solution into the most tender area of a persistently painful herpes zoster or the injection of procaine solution into the sympathetic nerve supplying the area will often dramatically relieve pain that has not responded to injections of pituitary extract.

◆

Aminophyllin Is not Dangerous

The intravenous injection of aminophyllin is not dangerous, if it is injected slowly. Some authorities recommend mixing it with 50 per cent glucose solution so that it cannot be injected rapidly. Hundreds of injections have been given here without serious results.

◆

Diabetes Plus Tuberculosis

Joslin has suggested that all diabetics have chest x-rays at regular intervals as a much higher percentage of diabetic patients have pulmonary tuberculosis than do the average run. In a series of twenty eight severe diabetics, almost fifty per cent had pulmonary tuberculosis.

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Cooling the Body in Hot Climates

It is difficult to study or carry on desk work efficiently and comfortably in hot climates. Studies here have shown that if an individual sits on a metal chair, through which cold water is circulated, the heat will not be oppressive to him.

◆

"Cookbook Medicine"

Know what you are doing. Don't follow directions in a book or journal blindly, as one would in reading a cookbook. When you carry out some test or treatment, know what you are doing and *why* you are doing it.

CLINICAL MEDICINE has long felt that if a few facts in anatomy, physiology and biochemistry were known to every physician, he would not waste time in reading much "clinical" material which is pure guesswork. Knowing *why* edema occurs, for instance, renders the treatment simple.

Impetigo in the New Born

By PETER J. MANION, M.D.
St. Louis University School of Medicine
St. Louis, Missouri

Infants have no immunity to impetigo in the first days and weeks of life. Infection with impetigo in the new born is serious because there is an occasional case of blood stream invasion and death follows.

The lesion appears as vesicles (small blisters) which are easily ruptured. Impetigo most frequently appears on the neck, face, back, axillary area and groin.

Etiology: Overcrowding, poor nursing technic, and humidity. The bacterial causes are streptococci and staphylococci, (albus or aurcus).

All previous routine treatments with ammoniated mercury ointment, noncleansing technic and soap and water method were used without much success.

In 1940, crushed sulfathiazole was applied with the clearing of the impetigo in 48 hours. Recently, we have been using sulfathiazole made up in soap in washing the baby, with perfect results. (No cases of impetigo developed). Examinations of the blood showed no sulfonamide present after three applications of sulfathiazole ointment.

Routine, Prophylactic Measures

(1) Heat in a nursery leads to prickly heat and to skin infections. Air conditioning is best in the nursery. If not available, movement of air should be arranged so that babies are not over heated. (2) The mother is treated for any skin infections. (3) Careful laundering is done of all clothing and bed clothing. (4) All attendants and the physician wash hands on first going into the surgery and between handling of each baby. A cap and mask is worn during the entire time in the nursery. (5) The baby is washed and one application of 10% sulfathiazole ointment is made to the entire surface with special attention to creases and folds of the skin. (6) Each baby has his own equipment. (7) A daily oil bath is given to all babies. (8) Each baby is bathed separately in his own bassinet.

Results: 4,019 consecutive babies have gone through the nursery without one case of impetigo developing since the above technic was developed. There have been no cases of dermatitis and no sulfonamide content in the blood. The ointment is made up of aquaphor base and is applied once only.

Notes by R.L.G. from a paper given before the Southern Medical Association meeting, Nov. 1944.

Common Factors in Maternity Mortality*

By RALPH L. BARRETT, M.D.,
New York City

Hemorrhage is the chief cause of death. Anemia should be corrected early. Any weakness or debilitation should have treatment *before* delivery. If the patient's red blood cell count is below 3,500,000 or if her hemoglobin is less than 70%, the patient's blood should be typed and the Rh factor determined. Plasma, saline and glucose solutions should be available in delivery room. If an operative delivery is indicated, a donor, who has been cross-matched, should be *at hand*.

If bleeding occurs while the fetus is viable, the patient should be sent to the hospital, a blood transfusion given, and all preparations made for operation before a sterile vaginal examination is carried out. Consultation should be obtained. If a central placenta praevia is found, a cesarean section should be performed if the patient is a primipara, or cervical incisions should be made and the cervix dilated or a vaginal cesarean section performed, if a multipara.

For premature separation of the placenta, one should give small doses of pituitrin, apply a tight abdominal binder and carry out a vaginal delivery using a bag, if necessary, to dilate the cervix. A cesarean section may be necessary.

Prolonged labor is not dangerous, if the patient is kept well nourished and is permitted intervals of rest. A high proportion of maternal deaths occur if labor lasts longer than 36 hours. Of these deaths ⅓ are due to schock, hemorrhage, or both, and ⅔ are due to sepsis. The records of these cases of prolonged labor indicate there is usually very poor supervision.

Injections of pituitrin or thymophysin caused ruptured uteri and death, in several cases. One should suspect a ruptured uterus after any difficult vaginal delivery. After the removal of the placenta, one should put on fresh sterile gloves and explore the fundus of the uterus, the cervix, and the vagina for ruptured uterus, laceration of the cervix, or tear of the perineum.

Anesthesia causes several deaths yearly, usually due to aspiration of food into the lungs and consequent pneumonia. The patient often has eaten some food and the anesthetist was not informed.

*Abstract by R.L.G. from a paper delivered to the New York State Medical Society, May 15, 1944.

DIAGNOSTIC POINTERS

Vomiting Due to Migraine

• Spells of vomiting, lasting from one to three days, and not associated with abdominal pain, are often due to migraine. The headache may be so mild that the patient does not mention it. In these cases, it is helpful to learn that there is no indigestion between spells, or to learn that in childhood the patient used to have those spells of bilious vomiting which I feel sure are often equivalents of migraine. I feel surer of my diagnosis when I learn that the attacks usually follow excitement of fatiguing experiences, and I am sure when I get the story of a preliminary scintillating scotomata, or of an absence of the trouble during pregnancy. —W. C. ALVAREZ, M.D., in "Nervousness, Indigestion and Pain" (Paul Hoeber, Co. Publisher).

Significance of Post-Nasal Drip

• A postnasal drip or expectoration of yellow, mucopurulent discharge suggests sinusitis. A thin watery excretion may indicate allergic rhinitis (hay fever, vasomotor rhinitis) or an acute rhinitis (cold). Blood tinged discharge may indicate a sinus malignancy.—F. L. WEILLE, M.D., in *Med. Clin. N. Am.*, Sept., 1944.

Persistent Lung Signs

• When infiltration persists for several weeks after an acute pulmonary infection, with signs of atelectasis or other evidence of incomplete aeration of the lung, there is a possibility of bronchiectasis.—H. C. HINSHAW, M.D., in *Dis. of Chest*, May, 1944.

Recurrent Dislocations

• Recurrent dislocations occur because the torn capsular ligaments have not healed, the articular surfaces being displaced easily and frequently. In most instances recurrence can be attributed to insufficient immobilization. The ligaments on all sides of the knee are so strong that complete dislocation is rare. Partial displacement or subluxation may accompany severe sprains. When dislocation does occur it is produced by extreme force applied anteriorly or posteriorly, which tears the crucial, lateral and capsular ligaments. — EDWIN O. GECKELER, M.D., in "Fractures and Dislocations for Practitioners."—(Williams & Wilkins Co.)

Red Blood in the Stools

• Red blood in or on the stools should always make the physician think of chronic ulcerative colitis or carcinoma of the colon or rectum even when bleeding hemorrhoids are present. Blood on the toilet paper is likely to be from hemorrhoids or a fissure.—W. ALVAREZ, M.D., in "Nervousness, Indigestion and Pain" (Hoeber, publisher).

Undiagnosed Anemia

• In every unexplained anemia, one should consider the possibilities of a malignant disease in the right colon, especially in the cecum. A mass may be palpable in the right lower quadrant, there may be vomiting, alternating constipation and diarrhea *may* appear and occasionally fever is present. Because the contents of the colon on the right side are liquid and because the tumor is usually soft and fungating, symptoms of intestinal obstruction appear late or never. — ALTON OCHSNER, M.D., in Cecil's "Textbook of Medicine" (W. B. Saunders Co., Publisher).

Appendicitis vs. Cecal Carcinoma

• The symptoms of right sided malignant lesions so frequently simulate those of appendicitis that in 18 percent of cases, the patient is operated upon for appendicitis. Such patients vomit frequently, may have alternating constipation and diarrhea or other functional disturbance of bowel habit and a mass may be present in the right lower quadrant. — ALTON OCHSNER, M.D., in Cecil's "Textbook of Medicine" (W.B. Saunders Co., Publishers).

THUMBNAIL THERAPEUTICS

Chronic Osteomyelitis and Penicillin

• Chronic osteomyelitis is benefited by large doses of penicillin. Three-fourths of all cases obtain temporary arrest of the disease with healing of all sinuses, after 3, 4 or more weeks of at least 80,000 units daily. Progress may not occur until the dosage is increased to 120,000 to 160,000 units daily. If any sequestra are noted on the roentgenogram, they should be removed surgically after 5 days of penicillin therapy. Excision of fibrous tissue around the area may remove a foci of infection.—DONALD G. ANDERSON, M.D. (Boston University School of Medicine), in *M. Clin. North America*, Sept. 1944.

Balanitis and Swollen Prepuce

• Zinc peroxide has been used in over 400 cases for relief of a swollen prepuce caused by 1 or more venereal diseases. The powder is forcefully blown about the glans penis and under the foreskin by means of an insufflator; secretions moisten and retain the powder under the prepuce. Treatment is repeated in 2-3 days if necessary.—G. G. ALLISON, M.D., in *J.A.M.A.*, Mar. 18, 1944.

Smoking Affects the Heart

• Breathlessness on slight exertion, palpitation, substernal distress, premature beats, precordial pain, and changes in the T, QRS and P waves of the electrocardiogram are frequent findings in heavy smokers. Reports show that auricular fibrillation, auricular flutter, sino-auricular heart block, auriculoventricular heart block, are also occasionally precipitated by smoking.

After coronary infarction by ligation, smoking markedly alters the electrocardiogram in the acute stage and the heart's tolerance to nicotine is one-fourth that of normal. In one review of 15,000 smokers and non-smokers, there were ten percent more than the average with organic heart disease among smokers.—D. G. CHAPMAN, M.D. in *Va. M. Monthly*, May, 1944.

Simultaneous Immunization Against Tetanus, Diphtheria, Pertussis

• Two injections of 1 cc. of a mixture of diphtheria and tetanus toxoids and Hemophilus bacilli produced satisfactory immune responses to diphtheria and tetanus. 50 billion Hemophilus bacilli should be given in each cc. to provide satisfactory immunity. The injections are administered 12 weks apart.—J. B. HUMBER, M.D. in *J. Pediat.* Mar., 1944.

Birthmark Treatment

• "The majority of vascular nevi occurring in infants will involute and disappear spontaneously before the age of six years, without treatment. Therapy should therefore be withheld until that time. Those that do not clear of their own accord will not respond to x-rays or radium."—C. RUSSEL ANDERSON, M.D. in the *Journal of Pediat.*, August 1944.

Age

• Age is not a fatalistically fixed, natural, irreversible process chronologically determined by the species of the animal. The processes associated with ageing should be looked upon as living, fluid, elastic stages of give-and-take, for the sake of adjustment, as the organism passes through its life span. Those changes indicative of aging are manifestations of the attempt of the organism to adapt to the years of its life.—Q. MACNIDER, M.D. in *South. Md & Surg.*, July 1944.

Indelible Pencil Wound

• A puncture wound from an indelible pencil often results in a serious infection. All dye stained tissue must be completely excised.—*South. Med. & Surg.*, July 1944.

NEW BOOKS

Any book reviewed in these columns will be procured for our readers if the order, addressed to CLINICAL MEDICINE, Waukegan, Ill., is accompanied by a check for the published price of the book.

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APPLIED DIETETICS
Stern

APPLIED DIETETICS: The Planning and Teaching of Normal and Theraueptic Diets. *By Frances Stern, Chief of Frances Stern Food Clinic, The Boston Dispensary; Assistant in Medicine, Tufts College Medical School, et cetera. Second Edition.—The Williams and Wilkins Co., 1943. Price $4.00.*

In compact manual form is presented the uses, construction and teaching of diets for the well and the sick. Actual details are given in full, so that the patient may understand thoroughly what and why he is to eat. Many tables are given for reference. Dietary outlines discuss briefly the dietary treatment of abnormal conditions. The intelligent patient will learn much from reading this book, and thus save the physician or dietitian's time. A more valuable guide for the doctor, dietitian or nurse cannot be imagined.

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PERSONAL MENTAL HYGIENE
Moore

PERSONAL MENTAL HYGIENE. *By Dom Thomas Verner Moore, O.S.B., M.D., Ph.D., Professor of Psychology and Psychiatry, Catholic University of America.—Grune & Stratton, 1944. Price $4.00.*

The author points out that psychiatrists, who in many ways are guiding the mental health of thousands of civilians and armed force members, tend to stay on the emotional plane and do not look to intellectual and spiritual forces for aid. This is the same type of thinking that causes the surgeon to remove a "chronic appendix" from a young, nervous girl who is upset because of a family situation.

The book is written for the intelligent layman who wishes to keep as healthy mentally as he does physically; this purpose is fairly well carried out, although the text is long and interlarded with many case histories, and quotations from poetry and other literature. No where does he give an unbiased view of the sexual drive and its relationship to a normal life.

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PIONEERS OF PEDIATRICS
Levinson

PIONEERS OF PEDIATRICS. *By Abraham Levinson, B.S., M.D., Assistant Professor of Pediatrics, Northwestern University School of Medicine; Attending Pediatrician, Children's Division of Cook County Hospital; Senior Attending Pediatrician, Sarah Morris Hospital for Children of the Michael Reese Hospital.—Froben Press, 1943. Price $2.00.*

This book represents "a birdseye view of pediatric progress as reflected in the contributions of pioneers in the field." Eleven short chapters, each containing brief factual bibliographies and selected quotations describe successive periods of historic importance. There is an appendix in the form of a chronological list of outstanding contributions made by American pediatricians; however the specialty of pediatrics has made such tremendous strides in the current contemporary generation that the value of this list is much curtailed by the omission of references to the many brilliant workers who are still living and active. A beautiful series of portrait reproductions accompanies the text. It is clear that much laborious industry has gone into the compiling of this volume, but its limited scope, undistinguished style, and absence of broadly interpretative discussions of the relationship of these pediatric pioneers to the main stream of medical progress and human culture, will limit its appeal to that fraction of our profession who already possess an innate love for the history of medicine.—I. J. W.

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DISEASES OF THE SKIN
Ormsby and Montgomery

DISEASES OF THE SKIN. *By Oliver Ormsby, M.D., Rush Professor of Dermatology, University of Illinois School of Medicine, et cetera, and Hamilton Montgomery, M.D., The Mayo Clinic, Rochester, Minnesota, Sixth Edition, thoroughly revised—Lea and Febiger, 1943. Price $14.00.*

This compendium contains material that must be known by the dermatologist and the physician who cares for skin deases. For the pathologist and specialist, there is much interesting material on histopathology and mycology.

For the physician on the firing line, much attention is given to differential diagnosis and to various methods of treatment.

For the sixth edition, all material has been streamlined to prevent the book from becoming unwieldy. Diseases have been regrouped for simplicity, much material now disproven by recent discoveries has been removed, twenty-two new diseases are described and the descriptions of many others have been reworked.

The illustrations are excellent, the prescriptions are many and usable.

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MEDICAL USES OF SOAP
Fishbein

MEDICAL USES OF SOAP. A Symposium, *Edited by Morris Fishbein, M.D.—J. B. Lippincott Co., 1945. Price $3.00.*

This book is fascinating in that it considers unusual aspects of a very common article. Aside from knowing that soap should not be used by eczematous patients and that some soaps are irritating, the average physician and layman rarely considers the subject further.

The chemistry of soap and the steps in soap manufacture are presented. Sulzberger contributes three articles: Usual or normal effects of soap on normal skin, abnormal effects, and effects of soap on diseased skin (indications and contraindications). Cornbleet discusses the use of soap in cleansing the hair; McCord, the use of soaps in industry; Hollander, the employment of soap for shaving; G. Guy Lane and Irvin H. Blank, the use of detergents other than soap; M. Fishbein, the medical uses of soap in first aid, treatment, venereal diseases, scabies and so on.

Should soap be used in cases of fungous infections? What are the signs of soap damage? What is housewife's eczema? Should impetigo be cleansed with soap and water? Every day practice will be benefited by reference to this book.